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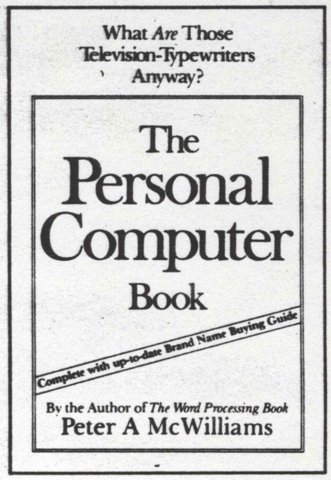
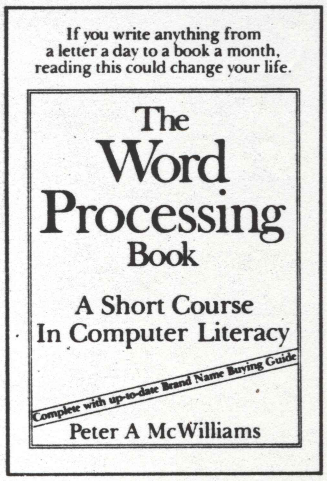

What *Are* Those Television-Typewriters Anyway?

The Personal Computer Book

Complete with up-to-date Brand Name Buying Guide

By the Author of *The Word Processing Book*
Peter A McWilliams

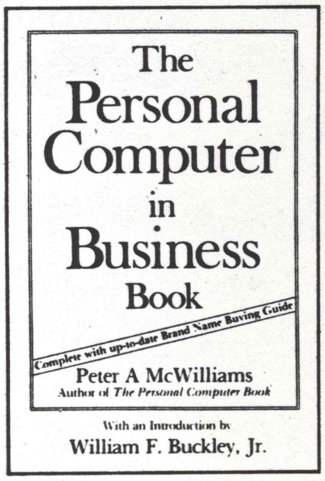

If you write anything from a letter a day to a book a month, reading this could change your life.

The Word Processing Book

A Short Course In Computer Literacy

Complete with up-to-date Brand Name Buying Guide

Peter A McWilliams


The Personal Computer in Business Book

Complete with up-to-date Brand Name Buying Guide

Peter A McWilliams
Author of *The Personal Computer Book*

With an Introduction by
William F. Buckley, Jr.

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Prices continue to spiral down, as do a few companie (Osborne and Texas Instruments have fallen). The PCjr ha been announced, the Coleco Adam has arrived, and ne printers and software have been introduced.

Update D will be ready May 1st.

The Battle is Over

The battle is won. It's all over but the fighting. IBM is the new standard for personal computers, and is likely to remain so for years to come.

The great Punic Wars over a standard have been raging for some time. Early battles pitted the Commodore PET against Radio Shack against Apple. Radio Shack and Apple won. Then CP/M came along and slugged it out in a tag-team match with the two winners. No clear winners in that battle. It smoldered on for years.

Someone put CP/M on the Apple, which formed an unlikely alliance, and indicated that both had won. But Radio Shack said, "We have 6,000 stores. We already won. Why don't you both go away?" The battle continued.

Noting that the real losers of this battle were really consumers, the UN (computer writers) joined in, and declared a sort-of truce: CP/M was the winner for business and word processing; Apple was the winner for games and overall expandability; Radio Shack won for being everywhere at once (there was hardly a small town anywhere that didn't have a Radio Shack store).

The treaty was never ratified by The Big Three, but at least consumers knew where to shop for what.

Then came IBM. It offered *a whole new standard*. Just what the computer world needed (he said, with no small degree of irony). But, in little more than a year, IBM won, and imposed this fourth standard as THE standard for personal computers.

The signs of an IBM victory are everywhere. Not only is almost every significant new piece of software being introduced first on the IBM, but almost every piece of software that's ever been written is being rewritten for the IBM.

Plug-in board, peripheral, and printer manufacturers are outdoing themselves in not only quantity, but also quality of product.

And, most telling of all, other computer manufacturers are turning out computers that are advertised proudly as "IBM Compatible."

How did IBM do it? How did it come in with a new standard and wipe out the three competing standards (Apple, Radio Shack and CP/M)?

Well, first, there are those initials, I. B. and M. No small amount of mystical power is contained in those three letters. IBM is so closely linked to computers that some are predicting "IBM" will lose its Trade Mark status and, like escalator or aspirin, become a generic term for all computers. When IBM introduced a personal computer, people LISTENED.

But IBM didn't rely on its name alone to launch the product. They came up with a brilliant ad campaign featuring Charlie Chaplin. (IBM even got permission from the Chaplin estate.) These ads were not only well done, they were everywhere—still are, in fact. Now, every time someone sees Charlie Chaplin, they think of IBM.

Then there was the computer itself. Apple was good at processing games and graphics, but poor at processing letters and numbers. Radio Shack and CP/M machines were good at processing letters and numbers, but poor at graphics and games. The IBM could do both, and do both well. Finally, somebody could do word processing AND play flashy full-color graphic games on the same computer.

Beyond that, it used a 16-bit processor, which could access more memory than Apple, Radio Shack or CP/M. This extra memory opened the door to powerful new programs. Just as people bought Apples just to run VisiCalc back in 1978, people were buying IBMs just to run 123 or Context MBA in 1983.

And, in what was probably the most brilliant (and non-characteristic) move of all, IBM *invited* other manufacturers to make peripherals to plug into and add onto an IBM. In the past, the quickest way to void an IBM warranty was to use non-IBM products on an IBM machine. (Years ago, an IBM repairman said I shouldn't be using any ribbons but IBM ribbons on my Selectric. "Is it OK if I use non-IBM paper?" I asked.)

But with the PC, IBM made usually-secret schematics available to all, and announced to the world, "We've got five expansion slots, boys. Come on and plug on in!" And they did. And they still are. There hasn't been this much action since the Chicken Ranch closed.

Meanwhile, Apple is talking about letting the Lisa run programs written for the IBM, and Radio Shack has announced an IBM compatible computer. Does it sound like there's a winner emerging to you?

The Myth of IBM Compatibility

Now that IBM has become the standard in personal computers, a lot of manufacturers are claiming their machines are "IBM Compatible."

Last year, the key selling phrase around computerdom was "User Friendly." One software manufacturer confessed, "Creating User Friendly software generally meant pulling out last year's brochures and stamping 'User Friendly' on them."

This year's selling phrase is "IBM Compatible." Whatever the minimum a manufacturer can do to call its computer IBM Compatible, it'll do.

Generally, the minimum is getting the computer to "read IBM disks." This means that if you put an IBM disk into the drive of Computer X, Computer X will be able to read information from the disk. This does not mean Computer X will be able to write information onto that disk, or that it will run a program on that disk, or that it will even be able to display the information on its video screen.

In other words, if all a computer will do is "read IBM disks," what the manufacturer is really saying is, "Please buy our computer. We're desperate."

The next level of IBM Compatibility is adding MS-DOS, which is the same disk operating system as IBM-DOS. This makes the two machines "DOS Compatible," or, as Brand Y likes to say, "IBM and us share the same operating system." This means, theoretically, that Brand Y can read IBM files and write IBM files, but not necessarily run a program written for the IBM.

Running programs written for the IBM requires that a computer, Brand Z, say, copy a good deal of the internal architecture of the IBM. Most of this is public domain, or available for license from other manufacturers. (IBM purchases a good deal of its internal workings from other manufacturers, and so could Brand Z.) If Brand Z set out to clone the IBM, it could do a pretty good job—until it got to ROM.

IBM holds a copyright on the information inside its ROM chip, and any computer manufacturer that copies an IBM copyright does so at its own peril. So IBM cloners copy a little here and a little there, but thus far no one has been courageous or dumb enough (choose your own adjective) to copy the whole thing.

Without *all* the information in IBM's ROM, a computer cannot be considered fully IBM Compatible. This is because you never know when a programmer will use some of that information in a program. If a program, written for the IBM, says, "Go into ROM and get this information," on an IBM the information will be there. On a clone, it might or it might not. If not, the program will not run.

Therefore, there is no true IBM Compatibility. Some of the programs, written for the IBM, will not run on the clones. How many? Well, the clone manufacturers usually try the top 100 IBM programs and see how many will run. They then announce "most" will run (if it's more than 51), or they say 90%, or 95%, or whatever number ran.

These high percentages are nice, but what if the program you want to run is in that incompatible 5%? And what if the program you want to run was never tried? And what if the program you want to run hasn't been written yet, but when it's written it runs just fine on the IBM, but not on Brand Z?

I report this not because I like it, only because it's true. There are too many people who paid thousands of dollars on an "IBM Compatible" computer, only to find that it's not really. As of now, if you want 100% IBM Compatible, you'll have to buy an IBM.

This is unfortunate, because many of the Compatibles are better computers than the IBM, especially when it comes to keyboards. Some of the clones have discreet cursor movement keys, and properly placed shift keys, and a quiet keyboard. Others have better color graphics, or cost less, or are portable. For your needs, maybe 90%

compatibility is enough—but make that choice with your eyes open.

In the meantime, it's not certain what IBM will do about all this. Will they follow the Apple route and sue everyone in sight? Or will IBM take a smarter tact, and license its ROM to interested parties? This would lead to true compatibility, choice in the marketplace, and the final seal on the fact that the IBM Standard is the new standard for personal computers.

Does this mean you should only buy an IBM if you want to do word processing? No, not at all.

If the *only* thing you want to do with your computer is word processing, then get the screen and keyboard you like best. The fact that thousands of educational, business, and recreational programs are available for the IBM will not matter. You'll be busily writing, oblivious to the hubbub, in love with whatever computer you've bought.

I do not use an IBM. I do not plan to use an IBM in the near future. I hate the clicky sound of the keyboard. The replacement keyboard from Keytronics is quieter, but not much better. I'm more than happy writing on the first computer I bought almost three years ago. Sitting unused a few feet away is a PC IBM sent me for evaluation (along with a half-dozen other expensive "state of the art" computers from other manufacturers). I like what I've got. I'm used to it. We're comfortable together.

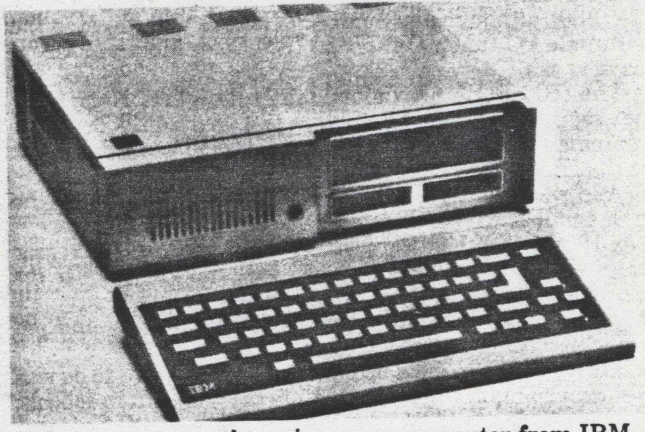
If, however, you plan to do things *other* than word processing on your computer, then the IBM deserves a serious look. A *very* serious look.

Also, a new generation of word processing programs are being written for the IBM. We found *scores* of them while researching *Word Processing on the IBM*. (A special edition of *The Word Processing Book* for potential IBMers.) If you think you'll want to upgrade programs, and will want to have each state-of-the-art word processing program as it comes along, then the IBM would be the best bet.

If money is an issue (and when is money not an issue?), a Morrow or a Kaypro make excellent word processing computers for about half the cost of an IBM. Don't feel you have to mortgage the ranch just to get an IBM. There's lots of word processing power to be had for lots less.

I don't want you to feel locked into an IBM. This essay is not my endorsement of IBM as *the* personal computer, it is simply my best guess as to what the future standards of personal computing will be.

The IBM PC Junior



One cannot exactly *review* a new computer from IBM—especially one with as much pre-announcement publicity as the PC Junior (known to everyone but IBM as the Peanut). You cannot look at it and say "As a computer, how good is this one?" With IBM's name on it, you have to ask, "Will they get away with it?"

To answer the second question first, Yes they can. To answer the first question: Anyone other than IBM releasing this computer at this price wouldn't stand a chance.

But IBM is IBM, and because IBM is IBM, all the software and peripheral manufacturers are figuring that this is THE home computer, and they will go off and write programs and make plug-in boards and, lo, with all that support, the PC Junior *will* become THE home computer. It's a form of self fulfilling prophecy. It will work. And no one other than IBM could pull it off.

For those of you who have been vacationing in Grenada for the past few weeks, here are the details. The PC Junior (where did they come up with that name?) comes in two configurations. An "Entry Model," with 64K of memory, two cartridge slots (for games, programs, and whatever else the world dreams up), and a detachable keyboard costs $669 (where did they come up with that price?).

An "Expanded Model" has 128K of memory, a 360K disk drive, and all the other goodies offered on the Entry Model. The price is $1,269. (The idea behind expanded memory and only one disk drive is this: The program is loaded into the memory and acts like an "A" drive. The disk drive stores the data people usually put in the "B" drive of a two-drive system. A bit more memory is cheaper than a second drive. For the home, it makes sense.)

Offered accessories for the PC Junior (I can't bring myself to type the ridiculous IBM abbreviation "PC*jr*") include a built-in modem ($199); a wonderful joystick ($40); a carrying case ($60) (watch out Kaypro?); a cheap but terrible printer ($175); and an ok but expensive color printer ($1,999).

Both the Entry and Expanded Juniors are designed to use ordinary televisions for screen display (connector for TV: $30), although any number of houses will invest in the Ultimate PC Junior Option: an IBM Color Monitor ("If you have to ask...").

The IBM PC Junior is brilliantly designed. Note: I am not saying the IBM PC Junior is a brilliantly designed *computer*—I am saying the IBM PC is brilliantly designed. It fits IBM's goal precisely.

And what do you suppose was IBM's goal? To design the best small computer to sell for the least amount of money? No. If they did that, they would lose all future PC Senior sales. Besides, they're IBM. They don't have to produce the best computer at the best price. They just have to produce a good enough computer at a good enough price and get away with it.

Their goal? My guess is that what IBM wanted to do was design a computer that would fit in the home, fit in schools, but not fit in business (the major buyers of PC Seniors). They had to give the PC Junior price and features that would knock Apple IIe out of the box, yet keep the PC Senior the friend of professionals everywhere.

Given that that was their goal, they have succeeded beyond even IBM's ability to succeed. Comparing the PC Junior with an Apple IIe, very few householders are going to pick the Apple. Comparing the PC Junior with the PC Senior, very few business people are going to pick the PC Junior.

IBM has it both ways. Just the way they want it. Again.

The key to keeping businesspeople at bay is the keyboard. It looks cheap. No self-respecting middle-manager would want one on her desk. No secretary would want one on his desk. It looks like a toy, not a business tool. It has no numeric keypad. For a few hundred dollars more, they'll take the PC Senior every time.

But the keyboard is deceptive. It only *looks* cheap. In fact, it's not bad to work with. I wouldn't want to write a novel on it, but a review or two would be no problem. In other words, for the kid's homework and the parent's letters to Abby, it'll do just fine. Also: unlike the PC Senior, the shift key is in the right place.

And the keyboard is THE most detachable keyboard around. There's not even a wire connecting it to the computer. It's all done by infra red rays, just like science fiction movies (and remote control units for television). Like the ads for cordless phones, mom can take her computing into the kitchen and dad can take his computing by the pool without any wires getting in the way.

So they include a gimmick that householders will love, and a keyboard look that business people will hate. See what I mean? Brilliant.

Then they go after Apple. (IBM does not seem to acknowledge the presence of Commodore. IBM, I think, considers them transients, like Texas Instruments.) For less than the retail price of an Apple IIe ($1,395), the Expanded PC Junior ($1,269) offers 64K more memory, a 360K disk drive, a detachable keyboard, and all the support Apple used to have the PC Junior will have from now on.

Apple can do one of two things: It can lower the price of the IIe, thus cutting into the only profit center Apple has, or it can ignore IBM and keep the Apple IIe expensive, and lose sales. Checkmate.

Atari would have trouble with the PC Junior, too—that is if Atari weren't already having enough troubles of its own. Poor Atari. They have too many computers, so no one knows which one to buy. (If they were predisposed to Atari for some reason—nostalgia maybe.) The Asian assembly lines for which Atari fired 1200 Americans can't keep up with production. (My heart weeps.) And Atari has had to raise its prices, just as everyone else is lowering theirs.

But these are all mistakes, and a company can survive these. Atari, however, has been committing an unpardonable sin for some time now: Atari has been losing money, driving down the stock of its parent company, Warner Communications. Mistakes can be forgiven. Constant sinners must be punished. Atari will either show a profit, and soon, or it shall be banished East of Eden. (Translation: dumped.)

But even if Atari didn't have these problems, the PC Junior would offer a few more. The primary one is games. The PC Junior comes with cartridge slots and joy sticks. Alas, even Atari's claim to fame —games— is being eroded. Is nothing sacred to Big Blue? (Boy, if *that* isn't the rhetorical question of the week.)

Not every computer manufacturer is unhappy with the PC Junior. There was much worry in Computerdom, what with all the Peanut rumors, but little cause for concern. The PC Junior is not so great or so cheap that a rational, well-planned, value-oriented home computer system cannot survive.

Commodore seems to have the bottom end of the market sewn up with the Commodore 64. (But are they going to be able to get enough disk drives? Disk drives that work, that is.) I would think it would embarrass IBM, ever so slightly, that a $200 Commodore has a better keyboard than a $669 IBM. Or am I being anthropomorphic, giving IBM human qualities?

The Coleco people are probably the most relieved. What if, as initial rumors indicated, the $700 IBM came with a disk drive? What would that do to Coleco's Adam? Destroy it, that's what it would do. But the span between $699 for an Adam and $1,269 for the Enhanced PC Junior is enough for Coleco to camp out on.

A brief comparison: The Adam has a better keyboard, the PC Junior a better screen display. The Adam printer (included) is letter quality, the PC Junior printer (not included) is not. The Adam has better game graphics (joysticks included), the PC Junior has better joysticks (not included). The Adam word processing software is included, the PC Junior word processing software is extra.

The PC Junior floppy disk is a more desirable storage medium than the Adam cassette drive, but costs more.

In all, it's a toss up. Two thousand dollars-plus for an IBM PC Junior (with printer, programs, and all) or $695 for a Coleco Adam, complete. Hard choice. Enough will choose the Adam to make it a hit. Fortunately, few will be dissatisfied with their choice, no matter what it is.

Kaypro and Morrow are in no real danger from the PC Junior. (The PC Senior is what they worry about.) Both Kaypro and Morrow offer remarkable value for business or the professional writer on a budget. For those who need the power of a full-featured business computer, the PC Junior is not the computer of choice. For business, get a Morrow or a Kaypro, or spend the few hundred more and get a PC Senior.

Is the IBM PC Junior right for your family? Could be. They'll be on display during December, and be on sale "the first quarter of 1984." (IBM can give less information in a factual-sounding answer than any company I know.) Take a look at one and decide.

Two things are certain: One, the PC Junior is likely to be the most supported home computer of all time. Two, there will be a lot of kids this Christmas unwrapping gift certificates redeemable during "the first quarter of 1984."

Big Brother is pleased.

The Portable IBM Clones

In looking at IBM compatibility, the two most-compatible computers seem to be the Compaq and the Columbia. Columbia promotes itself as running the 350 most popular IBM programs. The company has two models: the Columbia MPC, an office model, and the Columbia VP, a portable model. The VP has a nine-inch green screen with sharp resolution, two 320K double-sided disk drives, and a co-processor board which allows you to run both CP/M and MS-DOS programs. Their keyboard, unfortunately, is patterned after IBM's. The print key hangs below the vertical return key, and the alternate key lies under the shift key—bad spots for these keys. At least Columbia took the clickey noises out of the keys.

The MPC has similar workings to the VP, but has a twelve-inch screen and eight expansion slots for IBM-PC boards. The Z-80 (CP/M) board, however, is only an option with the MPC. A hard disk is available.

Both the MPC and VP come with a barrel full of software: The Perfect Series (Perfect Writer, Perfect Calc, Perfect Filer, Perfect Speller), Fast Graphs, Home Accountant Plus, MS-BASIC, MS-DOS, CP/M-86, communications and tutoring software, and games. The VP lists at $2,995, the MPC, $3,150.

The Compaq computer runs everything we've tried on it. A nearby computer store said they have not found an IBM program which does not work on it. Like the Columbia, Compaq has a keyboard patterned after IBM's, but has taken out the click. The keyboard has a good, sturdy feel. The nine-inch screen is quite sharp, though a little less so when running graphics. It's a solid machine. The price is $2,995, which is only about $250 less than a comparably equipped IBM. My recommendation, therefore, is that if you want portability, take a look at the Compaq—it's been on the market longer than any other IBM clone. If you don't need portability, go with IBM—it's only a few dollars more. The same holds true for Compaq's new hard-disk model, the Compaq Plus, which sells for $4,995 ($250 less than a comparably equipped IBM XT).

Seequa's Chameleon computer is another one to look at, both for price and portability. For $1,995 you get an IBM-like keyboard minus the clicks, a nine-inch screen, 128K RAM (expandable to 256K), two 5¼-inch disk drives each holding 320K, and a 8088 co-processor board. Both CP/M and MS-DOS operating systems come with this machine, as does the Perfect Series of software. Its case is metal.

I haven't had time to fully evaluate this machine, but *Future Computing* rates it as "quite IBM compatible," along with the Columbia and Compaq. An engineer friend of mine looked at the machine, and was quite pleased—with one reservation. He said that the main board on the inside of the machine was supported in only four spots, and nowhere in the middle. He felt that if you lugged the Chameleon around a great deal, the board would most certainly move and probably develop micro-cracks which could lead to trouble. One hopes Seequa will correct this problem.

The Kaypro Plus 88 computers, alas, don't make the grade. They are still the rugged machines that they are, and they run CP/M perfectly, but they are not very IBM compatible. Much of the popular IBM software, such as Lotus' 123 or WordVision, does not work. In fact, no piece of software which uses graphics will work. This is because the Kaypro machines address the screen differently than the IBMs. IBM uses what is called "bit mapping." Kaypros are not bit mapped, and until they put a graphics board in the machines, or rework the main board entirely, they will not be very IBM compatible. Also, the Kaypros use the 1.25 version of MS-DOS. The most current version of MS-DOS is 2.0. Consequently, the IBM software I have (from doing the *Word Processing on the IBM* book), doesn't work on the Plus 88s because it is not the same MS-DOS version the machine uses.

The one nice feature about the Plus 88s is that, when using CP/M, you can address the extra RAM of the 16-bit board. What this means is, in effect, you have an electronic disk drive—a RAM disk. With this electronic drive, you could put your editing or business software there, and all functions would work extremely fast.

Until Kaypro incorporates graphics and updates its MS-DOS, don't buy the Plus 88 for IBM compatibility. Buy it only for CP/M and RAM disk functions.

The Eagle PC

The Eagle PC is Eagle Computer's challenge to the IBM PC. It is virtually the same size as the IBM, and it looks a lot like the IBM. With the Eagle PC, you get a very sharp 12-inch monitor (a color monitor is also available), a 16-bit processor, 128K of RAM and two 5¼-inch disk drives providing 360K each. The keyboard is detachable (unlike the Eagle IIE) and fits neatly inside a built-in compartment underneath the disk drives (a nice feature when your desktop space is limited). And those disk drives are so *quiet!* I hate the drone of IBM's fan. Eagle took it out.

The PC comes packaged with Eagle's own word processing and spreadsheet programs, EagleWriter and EagleCalc. Both are enhanced versions of the earlier Spellbinder and UltraCalc programs. The new programs are designed to take advantage of the Eagle PC's improved speed, thanks to the larger memory and better keyboard. These 2.0 versions also work with the color monitor (if you care). In addition, Eagle also includes both MS-DOS and CP/M-86 disks to run all the IBM "compatible" software you could possibly want.

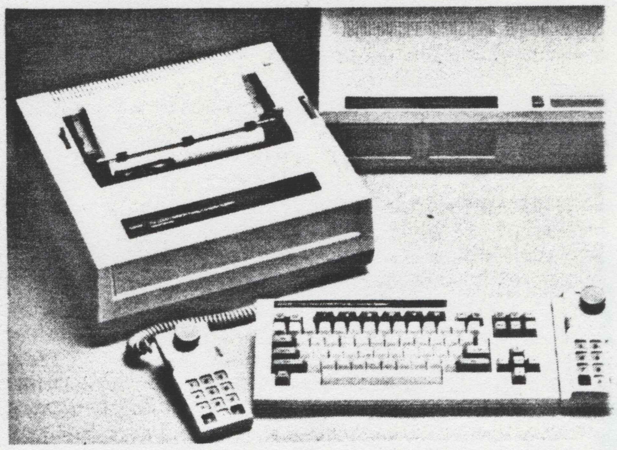
The documentation tells you that the IBM keyboard can even be plugged into the Eagle PC, but you won't want to—the keyboard is superior to IBM's. There's no clicky sound, the keys are more logically placed (based on the old Selectric, naturally), and there are discreet cursor movement keys. The Eagle PC has 24 special function keys, most of them labelled (as on the Epson) for user friendliness.

The Eagle PC has, in other words, all that you'd expect from a personal computer that must compete with IBM. Word processing with EagleWriter is fully functional, and it's no more difficult to learn than other word processing programs. Some of its features I don't particularly care for—you have to use a view mode to see what you'll get when your copy is printed, and the insertion mode shifts all text to the bottom of your screen until you're through inserting—but these are only *my* prejudices. Overall, EagleWriter does what a word processing program is supposed to do.

EagleCalc can't make fancy graphs, but it has all the basics to handle your spreadsheeting and accounting needs. If you really want graphs, you could get a program that does graphs and use it with Eagle's color monitor.

This is definitely one of the better IBM clones. Unfortunately, the list price of $3,495 (with software) makes it almost as expensive as the IBM. For about the same money, a lot of people are going to choose the "real" IBM.

Coleco Adam



In the beginning, Coleco made video games, with superior graphics, and an adapter to run Atari games, and Coleco saw what it had done, and it was good.

And then Coleco said, "Let us make a home computer system in our own image, and let it run Coleco games as well as contain all the features that will compete with Commodore and Atari." And then Coleco saw what it had done, and called it Adam.

The Adam is finally here, just in time for Christmas. It's an incredible buy for $695. It will easily fulfill the needs of a "family computer." The Adam is very easy to get acquainted with, and your kids will be using it in no time at all—if they can pry it away from you. Here's what you get:

—A full-size keyboard with six function keys, 10 command keys, and two ways of moving the cursor: using the cursor arrow keys, or using one of two Coleco game controllers (included). The controllers have joysticks for games and a built-in numeric keypad.

—A memory console with 80K of RAM, expandable to 144K. The cassette tape memory drive is capable of storing 500K. Accessing a file is a very slow process, but the tapes are easy to handle. You get a BASIC program, one storage tape, and a new game. Coleco's game graphics are still the best.

—A letter quality daisy wheel printer that is *very* noisy, and *very* slow (120 words per minute), but adequate for those five-page school reports on George Washington. The inclusion of a printer is unprecedented in the package price of a home computer system. The printer can also be used directly with the keyboard as an electric typewriter (bypassing the word processing program), allowing you to type labels and envelopes.

—A word processing package called SmartWriter, built-in, ready to use when you turn Adam on. For home word processing, it can do a lot: store files, highlight text, set variable margins, number pages automatically, search and replace—even do superscript and subscript. It's modelled after dedicated word processors. This is probably not sophisticated enough for professional writers or office workers, but for home use, it will do very well.

The Adam plugs into your color television set. It provides only 36 columns. As with all computers using TVs as screens, the characters are never sharp (especially when they're rainbow-colored). As a consolation, Adam lets you adjust the background to colors that might please you. (Just don't try to write your masters' thesis on it.)

The real test of Adam's worth in the home computer market will be how much software they can provide on their "data packs" (cassettes). Adam is designed to be compatible with Apple's "Source-Code," which means it can understand an Apple program, but not necessarily load an Apple program. It will make re-writing Apple programs for the Adam easy for software manufacturers.

Since Adam is also CP/M-based, Coleco can download some of the more popular CP/M programs onto their data packs. Many of them won't, however, simply because they're too sophisticated for "family computing."

Meanwhile, Coleco is introducing "early learning" and "homework helper" programs for the youngsters, and Adam will have home management programs, including a data base for filing.

Like other "family" home computers, the audience for the Adam may eventually outgrow it; as youngsters become more sophisticated in their acquaintance with computers, the Adam may not be able to expand enough to meet their needs. But that's tomorrow. Today, this is a great buy.

Note: At press time, we received word that Coleco will be raising the wholesale prices of its Adam on January 1, 1984, by 24%! Outrageous. The Adam was first announced at $600, released at $695, and now—if the wholesale translates to retail—a price of $860.

Coleco either (A) underestimated what a computer would cost to manufacture; (B) announced at a lower price to get good press and establish itself in the mind of the consumer as an exceptional value; (C) decided with the announcement of the IBM Junior that they could get away with charging more; (D) all of the above; (E) none of the above.

Whatever the reason, the price hike (if it goes through) diminishes Adam's value, decreases its ability to compete head-on with IBM, and significantly lowers Coleco's credibility. Let's hope they change their mind.

Other Computers

Hewlett Packard has lowered its prices. The HP-86B with dual drive is $2,865, and the HP-125 with dual drive is $3,190. (Still too expensive.) The company has announced an HP-150 computer, due out in January. Instead of using a mouse as on the Lisa, the user of this computer simply touches the screen at whatever choices he or she wants to implement. Infra-red sensors pick up one's touch.

The Kaypro 4 has a new price of $1,795—down $200. A great buy is now even better. Kaypro has also introduced their "Plus 88" computers which have 8088 co-processor boards, making their machines partially IBM compatible. The Kaypro II Plus 88 is $1,995, and the Kaypro 4 Plus 88 is $2,195. MS-DOS is provided in addition to their avalanche of CP/M software.

Modular Micro's Zorba has trimmed $400 from its price, making the Zorba $1,595. An optional 16-bit upgrade is available for $795.

Radio Shack has lowered prices on two of its models. They cut $1,400 off their Model 16, making it $3,334 with two drives. (The Model 16 has not been a success. Don't expect it to be around much longer.) Model II, which is being phased out, now retails for $2,195.

The Zenith Z-100, which was listed in my Buying Guides at $3,999 is now $3,599. That's still high.

Bucking the trend, Eagle Computer's prices are up. Their IIE, with two single-sided 360K drives, is $2,495 (up from $1,995). Eagle has introduced a portable computer called the "Spirit." It has two things going for it besides portability: it has a 10 megabyte hard disk, and Eagle claims the machine is IBM compatible. The price: $4,795, or $2,000 more than the 10 megabyte Kaypro 10 (which is CP/M based).

NorthStar has introduced a few new items for its Horizon. First, there's the multi-user system. The system allows up to eight different terminals to be hooked into a Horizon, giving each user independence. Secondly, NorthStar also has a 30 megabyte hard disk for the Horizon—almost necessary with more than one user. The price for the hard disk is $6,999 including a Horizon or $5,000 separately. Lastly, there is a 16-bit board for the Horizon, with 128K of memory, for $799. An additional 384K of memory is offered in a module for $1,299.

Joining the ranks of the 16-bit-board computer manufacturers is Otrona. Their Attache 8:16 machine costs $3,795 and comes with MS-DOS, CP/M, and Valet business software.

Sanyo has lowered its prices by $400. The MBC 1150, with two disk drives, is now listed at $2,099.

There has been a $900 drop (hooray) in Teleram prices. The T-3000 is now $1,595, and with the additional memory, the machine runs $2,095.

Toshiba now has a 16-bit machine with MS-DOS, the T-300. A two-drive system includes 192K RAM, 640K on each 5¼-inch drive, a monochrome screen, and costs $3,090. No word processing or business software is included with the T-300, but it does come with T-BASIC 16. An upgrade with CP/M-86 and C-BASIC together is available for $295. If you want a 14-inch color screen with your system, it costs $995 extra.

The T-100 has dropped in price to $1,295 for a single disk drive and monochrome screen, $1,695 for dual drives. Both come with WordStar and CalcStar, in addition to Toshiba's own mathmatics and graph programs. A new portable version with 16K memory and a liquid crystal display is available for $1,445 (or $1,535 for 32K).

In my review of the Cromemco C-10, I mentioned that the keyboard was small and lacked a numeric keypad. Cromemco has rectified this by developing a new keyboard. They sell it for $395. A C-10 with a new keyboard and two disk drives costs $2,570. Cromemco's word processing and business software is included, as is C-DOS (an MS-DOS-like operating system.) If you would like WordStar, CalcStar, InfoStar and MailMerge, add another $410.

Lanier, the stand-alone word processor company, has introduced a computer called the Lanier Business Processor. I have not seen it, but I know one thing: it costs too much. With two disk drives, a green screen, 8- and 16-bit capabilities and no software, it lists at $3,795.

TeleVideo soon will offer a portable version of their model 803 called the TeleVideo TPC-1. It will have a 9-inch screen, two drives, and, I'm sure, TeleVideo's solid construction standards. It will list at $1,895 with no software.

Lastly, speaking of upcoming, Morrow's hard-disk version of their Micro Decision will be released in December. Called the MD-ll, it offers 11 megabytes of hard-disk space, CP/M, word processing and business software, a twelve-inch screen, and a good keyboard with a separate numeric keypad and logically placed cursor keys. The price is $2,745—a good and worthy competitor to the Kaypro 10.

PRINTERS

In the world of printers, there have been a great many changes as well. One of the bigger trends is that dot-matrix printer manufacturers are advertising "correspondence quality." I must say, the print is getting better, but it's not as sharp as the daisy-wheel and thimble printers. At best, they look like a typewriter with a thick nylon ribbon—which is saying a great deal. This quality may be enough for most people, and just below par for those sending important letters or manuscripts.

Speed, however, goes to the dot matrix—nothing like spinning out a draft at 160 characters per second on an Epson FX-80 vs. 16 characters per second on a Transtar 130. Both machines are roughly the same price. Take your choice: speed or high quality. (The "correspondence quality" mode of most dot matrix printers is 40-80 cps.)

The Bytewriter printer has been upgraded. Olivetti Praxis 35 typewriters are now used instead of the 30, the difference being the 35 has a 3-pitch control (switch on front), the platen is easier to set, and the machine comes in a different color (all black). The price is $495. A heavier, slightly quieter version with a beefed up motor (the Praxis 40) costs $595.

The Brother HR-1/Comrex CR-1 list price has dropped to $995.

Mannesmann Tally 160L

One of the new generation of dot matrix printers entering the market, the Mannesmann Tally 160L gives you a choice of 160 characters per second in the regular dot matrix "draft" mode, or near letter quality at 40 characters per second.

The letter quality is accomplished by two passes of the print head. The quality of the print is excellent, and only someone scrutinizing the type would notice how it was done.

This is a sample of the Letter
Quality mode of the Mannesmann Tally

This is a sample of the Draft
Quality mode of the Mannesmann Tally

The Mannesmann has another new feature which should become standard on other printers. With most printers you have to face a myriad of little switches and search through a manual to set up the printer for your computer. The Mannesmann simply asks you questions in plain English on plain paper. You answer "yes" or "no." It's that simple.

Another advantage is the size of the printer. It measures just 14 inches wide and 9 inches deep. That even fits on *my* desk.

The printer comes complete with parallel and serial interface, and form feed tractor. There's nothing to add on. The price (at press time) is around $800, and when you consider that you can spend more than $2,000 for both a dot matrix and a letter quality printer combined, this could be a smart move.

Transtar 130

At $895 (list price, though frequently discounted), you get an extremely sturdy machine with a wide carriage that will give sharp characters and prints at 16 cps. It is also one of the quietest printers around. The platen turns with silence, and, while typing, the machine sounds like a fast bird pecking rather than a Mack Truck trying to get in gear. The Transtar has features all good printers should have: automatic paper loading, pause, line feed and page eject. It does not have, however, a print buffer or bi-directional printing. A tractor feed is available for $149.

The printer supports proportional spacing, sub- and super-scripting. The platen knob turns when you turn it—no mickey mouse need for having to pull the knob out first as on the Comrex CR-1, et al.

The only problem I've had with it is that sometimes, when loading paper in with the autoload, a corner of the paper gets caught in a little horseshoe-shaped piece by the printer hammer. The auto-load is adjustable, so I now have it stop before the paper reaches the horseshoe.

The Transtar printers are manufactured by Silver-Seiko of Japan, the parent company to Silver Reed of ~~American~~ America.

Silver Reed offers a similar printer to the Transtar 130 called the EXP-550. If you want letter quality at a medium speed and affordable price, check these out.

You should also know that Morrow Designs' MP-100 is the same printer as the Transtar 120 (and the MP-200 is really the Transtar 130).

Smith-Corona TP-II Plus

Those of you out there who are in serious need of a truly inexpensive letter quality printer should look at the new Smith-Corona TP-II Plus, an updated version of the TP-I. This is a solid little printer that weighs only 20 pounds. The print quality is good, with both underlining and boldface, and there is triple pitch spacing: 10, 12 and 15 characters per inch. The printing speed, unfortunately, is still a slow 12 cps using a bi-directional carriage.

The carriage and frame are very sturdy, and there's every reason to expect that this printer can stand up to a lot of form letters. The ribbon cartridges and print wheels are inexpensive and easy to replace. (It's all those years of making portable electric typewriters that's paying off.) The TP-II Plus also has both serial and parallel interface ports and an optional tractor feed attachment. There's also an input buffer of 570 characters.

The biggest drawback of the TP-II Plus is noise. It's hard to believe something so small can make such a racket, and this printer will shake whatever it is resting on without mercy—but it could be worse, and, the noise can be a small inconvenience if you need letter quality printing at a dot matrix price. The suggested list price is $645. Worth looking at.

By the way, if you find any TP-1 models around (there will be plenty around for months to come), you will find the suggested list has dropped to $595, but shop around because it will be heavily discounted as Smith-Corona phases it out in favor of the TP-II Plus.

SOFTWARE, PERIPHERALS

Fancy Font

The makers of this program had a fairly good idea: why not improve the capabilities of a standard dot matrix printer so that it can be modified to print "fancy fonts?" Fonts such as Roman, Sans Serif, Olde English, Script and type sizes up to 40-point?

With this program, it becomes possible to convert your Epson or IBM dot matrix printer into a more versatile machine—theoretically allowing you to print "letter quality" work that could be substituted for phototypesetting.

One look, however, at the Fancy Font User's Manual (which informs you proudly that it is printed using the Fancy Font system) and you will see that one man's "fancy" is another man's "just okay." Though it can do some nice headings—great for impressive title pages—it is really too difficult to be any good for extended word processing. There are so many commands to learn and to insert within your text that editing becomes a protracted process, and the end result is too much time spent formatting copy.

Also, since the program must instruct the printer to write over each line several times (in order to accomplish the "fancy" effects), the resulting pace is about 10 characters per second.

SoftCraft, the makers of Fancy Font, have provided something called "Pfont" prompts within the system to facilitate the learning of its wonders, but I couldn't make head or tail of it. The user's manual is not much help, either. ("When learning or uncertain about the use of Pfont, it is best to experiment," is not what I would call "helpful.")

Another limitation: Fancy Font is more difficult to use if you have WordStar. Fancy Font insists on using its own horizontal and vertical spacing, and you have to "disable" all of the formatting functions on WordStar to work properly with Fancy Font.

The true test, however, is in the results. After all, *how* it looks is the important thing, right? Since the User's Manual is produced using Fancy Font, it should be fairly impressive. It is not. Reading it is no easier than reading typical dot matrix copy. Why bother if it doesn't appear to be "letter quality?" Still, for flyers, circulars or personal correspondence with a flair, it might be worth the $180 price.

Fancy Font is available from SoftCraft, Inc.

Quick Check

On the subject of using personal computers for checkbook balancing—I don't. But there are some decent bookkeeping programs out there ideal for small businesses, and one of them I recommend is a program from Chuck Atkinson: it's called Quick Check.

This program is easily learned. The Quick Check has simple, one-key commands to select the items you want to add, update, delete or print. Accounts payable, bills, income, checks outstanding, and all other checking account and general ledger activity is entered simply and can be summarized quickly on a weekly or monthly basis. Items can be assigned an expense code that will allow you to see what percentage of your income is being spent where. The summary will even list income vs. expenses in two categories: deductible or non-deductible.

The menu is divided into eleven categories (deposits, balance, adjustments, etc.). Formatting is preset, based on the time-honored system of ledgers, giving you a blank form for each entry so you can just fill in the spaces, with the program automatically advancing the date one day each time you enter the program (which is easily changed with a single keystroke).

When printing checks, each account payable can be assigned a two-letter code, allowing you to write checks without typing in the same information over and over again—just change the amount entered. Quick Check can print checks by check number, payee, expense code—any order that's convenient for your record or filing purposes.

Correcting mistakes is easy, as a verify function comes up after each entry, and returning to the previous entry or continuing to the next are all one-key commands. Especially helpful is when the program asks you if you want printed copies of what you are about to enter.

The summary lists all relevant entries in alphabetical order, by expense code or date.

The entire program can be learned from the help menus on the screen—I did it without the manual at all, and if I can understand it, so can you.

If you have a small business and want to find a simple, single entry bookkeeping program that's truly easy to learn and use, then Chuck Atkinson's program is for you. The cost is surprisingly low—$49.95 in the Kaypro format; $94.95 for all other computers.

Retail Inventory Program

Chuck Atkinson is a dangerous man. He has this habit of designing software for people instead of computers. His Quick Check program let anyone become an almost-accountant even with no experience in computers or accountancy, and now, he lets anyone computerize their inventory.

Think of the implications. Small businesses around the country are suddenly able to turn their computers into cash registers, and keep track of their inventory at the same time. This program even tells you when it's time to reorder, which items are your bestsellers, and which haven't moved in months.

The Retail Inventory Program (strangely abbreviated to RIP) allows you to write up your point-of-sale invoices, and it automatically updates your inventory. It's a simple program, but one which will handle a large inventory, about 2000 items with a 200K disk drive, 4000 items with 400K, etc.

Combined with his Quick Check, you would have a complete inventory accounting system for around $300, and a good one at that.

Champion

Champion is a powerful accounting software program designed with medium-sized companies in mind. It has everything necessary to keep track of accounts payable, receivable, general ledger, a large payroll—and best of all, it is easier to use than PeachTree's accounting software.

Champion can generate financial statements with a simple request, and it can keep as many account balances as you need. There is a help menu available by touching the "?" key, which provides you with a brief description of what Champion wants you to input, and a page reference if you need to look up the documentation.

Since Champion does so much, it takes up a lot of room. It needs a minimum of two disk drives and you must have CP/M 2.0 or greater. A sample data storage chart shows that with all five modules (general ledger, inventory, payroll, accounts payable and receivable), a small company would need a minimum of 630K, a larger company 966K, to run Champion. It runs beautifully on a hard disk, and a hard disk is, of course, recommended for mid-sized business accounting.

Champion employs a security code, which seems like a healthy precaution. Several people can use a hard disk computer, but only a few have access to the accounting records.

The program updates all files with each entry, so that financial statements can be reviewed immediately to see how even a single transaction will affect a financial position. There is full screen editing using commands similar to WordStar, and a recovery program that is designed to recover data scrambled as a result of crashes or power failures.

There are extensive data-entry verification features, and an "open months" accounting feature which allows you to enter transactions for a subsequent month without closing out the previous month.

Champion can , no doubt, take care of your accounting needs if you have a medium-sized company. The cost is $2,475 complete, or $495 per module.

Wordpal

For seven years Compal (not to be confused with Compaq, the IBM clone) has produced an efficient word processor using their own software called Wordpal. Recently Compal began marketing "The Electric Briefcase," which is a slightly-modified Kaypro computer—the II, 4 or 10—using the Wordpal software. Compal also markets a modified DEC Rainbow.

Like Peachtext and Spellbinder, the power of this program lies in its printing capabilities. It allows formats within formats, does proportional spacing, and offers a change to italic or any other type style while printing. Also, Wordpal prints from the screen, omitting the step of saving or formatting—a timesaver for short files such as labels, memos and notes.

Because Wordpal is so printer-oriented, however, the screen can become filled with printer-command symbols. This may be jarring at first if you're used to a typewriter.

The only weak point in Wordpal is in saving a file. To save a full file, you have to 1) move the cursor to the beginning of the file, 2) call up the option menu, 3) choose option "C" or "B" (depending on whether you are saving text for the first time, or an additional time), 4) type in a linefeed or file name, 5) go back to the text, 6) and lastly, move the cursor back to where you were working. In WordStar you hit a Ctrl-KS, then a Ctrl-QP. In Perfect Writer you simply hit Ctrl-XS. Wordpal, to its benefit, however, institutes its commands instantly. No waiting around—help menus or text appear at once. Also, you have the option of saving from anywhere in the middle of the file on. If you're working on a large file, much time can be saved in saving only the newly-typed text.

There is no way to tell the end of a page while you are typing, as with all printer-oriented software, but Wordpal does have a widow and orphan command—that is, no interrupted paragraphs or stray lines will hang at the bottom of a page. Also, you can call to screen your final product and see just how the text will look when typed—and also where the page breaks are.

Wordpal can retrieve accidental deletions—an important feature—by simply hitting the escape key.

Wordpal offers user-defined keys, making it work much like Smartkey. Using this feature, you can save many of your frequently used printing definitions (margin settings, typestyles, and all) and have them available with the stroke of a key. Wordpal also has many step-saving one-keystroke features, which gives your machine the feel of a stand-alone word processor. For form letters or bulk mailings, an easy-to-use mail-merging function is included.

Wordpal will shortly be available in a generic CP/M version. The Kaypro II computer with Wordpal is $1,795, Kaypro 4, $1,995, and the Kaypro 10, $2,995. The DEC Rainbow version runs $3,995.

WordVision

WordVision is a new editor from Bruce and James Program Publishers, Inc., and it's an excellent value for the money. It offers a lot of powerful word processing features designed for the IBM PC. The numeric keypad and function keys are modified into text manipulating commands, and most of the features offered require only single-key commands.

Files are literally stored in "folders" that appear on screen, and the name of your file can be any length you wish. The expected editing functions—jumping, deleting, scrolling, etc.—are all where they should be and easy to learn, especially if you're familiar with programs like Perfect Writer or WordStar. Unfortunately, this means pasting down those silly stickers onto the keys that are changed. Four of the function keys become the four suits in a deck of cards: a club, a diamond, a heart and a spade (cute, huh?).

Highlighting and boldface appear on screen, and you have a range of optional choices which allow you partial or total page screen display ("what you see is what you get"). A command line at the bottom of the screen shows you current choices, allowing you to change page formatting or screen display at any time.

WordVision has a "quick phrase" and "special characters" feature that's especially appealing—you can pre-set up to five special combinations of words or names that you'll be using frequently in a particular text—and it allows you to insert these phrases at any point within your text as you type by touching two keys. You can also store special characters (depending upon your printer's capability) like foreign language marks.

Transposed characters or incorrect capitalization can be corrected with a single key that acts like a toggle, and deletions can be retrieved (if done immediately after the mistake). All this for just $49.95.

The documentation is still in the construction stage, but at least it's written in English. Because the program is not in its final stage, either, there are certain annoying limitations. Some functions that would be nice to see only produce a "sorry, that's not programmed yet" response. (To their credit, Bruce and James offers a full refund to users if they suggest a change or improvement that is adopted into their final edition.)

There is also a non-document editing feature which allows you to suppress WordVision's normal formatting appearances.

All in all, WordVision is a very worthwhile editing program that makes the IBM a much more "user friendly" machine.

Diskette Manager

If you're more than just a little disorganized in your filing habits, and you deal with several dozen disks in your work every day and you have an IBM, then you might want to look into Diskette Manager, an easy program that allows you to read, sort and print labels for all your disks.

Diskette Manager will read any formatted DOS disk for the IBM PC and allows you to name the disk, add comments, and catalog the contents either alphabetically or by date of entry. It then prints a standard-size label for the disk with all the above information. Clean, dot-matrix-printed labels that list not only the name of the disk but every file on it could save you time and headaches.

Each time Diskette Manager reads a disk, it saves the information in its catalog, ready for quick reference.

I would only recommend Diskette Manager if you use many disks. The program could be ideal for, say, an attorney with lots of documents to maintain on file.

Diskette Manager comes in two versions: 64K and 96K. The cost of the program, at $59.95, seems high. But if you're horribly disorganized, you might consider it an inexpensive investment in your sanity.

Directories and Catalogs

—The 1983 Directory of Computer & Software Retailers

This is a reference manual geared for libraries and for people in need of a mailing list. The directory contains four sections: Computer Stores; Mass Merchandise & Specialty Retailers; Office Equipment & Supply dealers; and Computer & Software distributors. Each section is subdivided by state and city. $350. Published by Business Guides, Inc., 425 Park Avenue, New York, NY, 10022.

—*Directory of OnLine Databases*

Updated quarterly, the directory contains detailed information on databases from around the world. The latest issue lists over 1,600 databases, including such major sources as The Encyclopaedia Britannica, the Magazine Index, and world stock exchanges, and such obscure databases as Hydrogen Information, Victoria (Australia) Motor Vehicle registration, and the Medium and Heavy Duty Truck Forecast. $75 for a one-year subscription. Published by Cuadra Associates, Inc., 2001 Wilshire Boulevard, Santa Monica, CA 90403.

—*The Software Catalog*

More than 31,000 software products are described in detail in this thick book. The catalog is cleanly arranged alphabetically by company and ISBN number, and includes separate indexes for subject, software name, computer systems, and operating systems. It is much easier to use than *LIST*, which categorizes only by subject. Published every six months with supplemental updates three months later, the catalog costs $168 per year. Elsevier Science Publishing Company, Inc., 52 Vanderbilt Avenue, New York, NY, 10017.

—*LIST*

Though much smaller than *The Software Catalog*, it is also much cheaper: $3.50. It lists over 3,000 business and software programs, arranged by subject and subarranged by product title. It is difficult to use if you are looking for a specific company, but great if you are interested in a specific or general application and want to see what is available. The first third of this 400-page directory offers articles on buying and using computers and software. Such topics as "What You Should Know About Computer Warranties" and "10 Questions To Ask Before You Buy A Personal Computer" can be helpful. It is published monthly by Redgate Publishing Company, 3407 Ocean Drive, Vero Beach, FL, 32960, and a year's subscription is $24.95.

—*IBM PC Expansion & Software Guide*

For the IBM PC user interested in comparing all that is available for a given application, this guide offers quick but detailed synopses—arranged by subject, but with indexes for product name, vendor, and advertiser. If one were looking for communications software, for instance, the guide details 49 different products. The entire catalog contains 2,200 different products. $16.95. Published yearly with updates ($3.95) every other month. Que Corporation, 7960 Castleway Drive, Indianapolis, IN, 46250.

Datatracker

The Datatracker is a breakout box, a device used to connect a computer to a peripheral or another computer. Though "serial ports" (RS-232 connections) are becoming standard on personal computers, the way they are used is not. That is, of the 25 pins in the connector, a computer may use pins 2, 3, 7 and 20 to send information to the printer, and the printer may use pins 10, 11, 12 and 17. The Datatracker shows which pins are being used so that the appropriate cable may be employed to "interface" the two machines.

Also, if you have a cable lying about and do not know how it is configured, Datatracker will show you quickly. If your cable is not the appropriate cable, Datatracker will work as a switching box.

This is certainly not a device the average computer user need worry about. Consultants and computer stores—people who put systems together—could use this, bypassing the more tedious method of using an ohmmeter. Price: $295.

UniForm

Here is an enormously handy program if you own a Kaypro or other computer with a CP/M operating system. It's called UniForm, and if you have ever been confronted with the problem of how to use your CP/M-formatted disk on another machine, now you can "initialize" your disks so that they are useable on, say, an MS-DOS machine like the IBM PC.

In less time than it takes to describe, the UniForm program gives you a menu of operating systems that you may choose to format your disk and will do it with the stroke of a key. If you have data that was written on your Kaypro and you have to get it onto an MS-DOS machine, UniForm can do it for you.

UniForm also allows you to put a disk in your Kaypro that is formatted for another operating system, and allows you to read that disk's directory and to copy files from it.

UniForm can format disks for the IBM PC, Xerox 800 series, TRS-80, Morrow MD2, NEC PC-8001A, Zenith Z-90, Heath, Cromemco, DEC, TI Professional and others. If you need to interrupt an operation in progress, all you do is hit a single key. This program is easy to understand, and the documentation is a scant 12 pages. Well made and recommended. The list price is $49.95.

Eye-Guard

If you are concerned about radioactive baddies creeping out of your video screen, here is a solution. It's called Eye-Guard (which replaces a previous product called I-Protect).

Eye-Guard is a 7mm thick piece of lead-impregnated plastic. Somehow they have arranged it so you can see through the lead. The Eye-Guard Screen is, in fact, quite transparent. The lead, however, blocks all of the x-rays and most of the ultra-violet rays emanating from the video screen. (This type of plastic is used for windows in nuclear power plants.)

The problem with this type of plastic is that it's about as reflective as the Joy-washed dishes that you can see yourself in. ("And that's a reflection on you.") To cut down on the reflectivity, there's an optional mesh anti-glare screen which adheres to the face of Eye-Guard. While this works well—and is worth the $10 extra—it also cuts down slightly on character sharpness.

Eye-Guard measures 8½ x ll inches, and adheres to one's monitor by velcro dots. For most computers this works fine. For Kaypros, the size is too large, and there is nowhere for it to stick. Langley-St. Clair, the manufacturer, is working on a Kaypro version which will recess into the screen. In the meantime, they say you can simply cut Eye-Guard down to size using an electric saw. (Note: wear a mask while sawing so you don't inhale lead dust. Suggestion—wait for the Kaypro version.)

I have no idea how real all this radiation danger is from video screens. It will take years of statistical analysis to come to a conclusion. In the meantime, if all it takes is $150 to avoid becoming a statistic, I find that inexpensive insurance. Like my morning handful of vitamins, I may not need any of them during a given day, but I take them anyway, just in case.

Personal Pearl

Programs for data base management have traditionally been powerful, but difficult to master. But a new program, Personal Pearl, is actually what you might call "user friendly": even if you never read the book you can, from reading the on-screen menus and help text, learn how to operate the system.

Personal Pearl works like DataStar, or Perfect Filer: you design a form, and fill it in. It does complex calculations, and will automatically fill in often used information, like names and addresses. The difference is that DataStar requires three large manuals to learn, and is written in jargonese, while Personal Pearl is written in simple, easy-to-understand terms.

While DataStar will do some things Personal Pearl will not, these things are mainly useful for large commercial applications, and wouldn't be missed.

The program uses many WordStar commands, especially for cursor control, so if you already know WordStar you won't have to learn new commands. The program will print labels, or create full reports, something only much more complex and expensive programs do.

It is an entirely independent program, so you don't need to interact with a word processing program. At the same time, it may be more difficult to use the entered date with another program, such as WordStar. You would have to format the information in a way that WordStar would understand. (DataStar formats information in a format that can be used with WordStar's MailMerge option.)

I spent several weeks trying to learn DataStar, and then this program arrived. In less than an hour I could get it to work the way I wanted it to, which is a lot to say.

Though simple, this is a complete program, which will meet the requirements of all but the largest data bases.

The creators of this program must have learned how a data base should work from other major programs, then developed a simple way to teach and operate it. $295.00

DataSaver

Computers require constant, steady power in order to operate efficiently. When the voltage drops below a certain point causing a 'brown out,' data can be lost, and even the computer itself can be damaged.

In our office, with so many computers running at once, we were experiencing problems with data loss, or disks becoming unusable. This problem can be solved several ways 1) rewire your house or office, 2) plug your computer in someplace else, 3) move to another city, or 4) buy what is known as a 'line conditioner,' or battery backup.

Cuesta Systems manufactures a line conditioner/battery back-up in one unit. This unit automatically kicks in within milliseconds (I'm not sure just how many millionths of a second it is, but who's counting?) so your computer never gets anything but constant power. Should there be a blackout, or a brownout, or even in rare cases a China Syndrome at your nearby Three Mile Island, your computer won't know the difference.

You will be alerted, however, by a beeping sound, every five seconds. This means the battery will run your computer for about 5 minutes, long enough for you to save what you are doing, shut down and turn on your transistor radio to see if you should evacuate the area. Along with the beeping (which can be easily silenced) a small light turns from green (everything A-OK) to red (everything NOT so A-OK).

Using this unit I discovered that in less than 30 minutes we had three occurrences of less-than-perfect power. Yet even when we unplugged the unit from the wall, the screen didn't so much as flicker.

Such security doesn't come cheap. The 90 watt unit, which is sufficient for most computers with floppy drives, costs about $400, while the 200 watt unit, suggested for hard disks, will set you back about $700.

It all depends on what your data is worth to you.

Prompt Doc

With the advent of the computer/word processor, the writer no longer has to sit down to a blank page. Now the writer is faced with a blank screen.

Prompt Doc is a program designed to change that. One of the more difficult parts of writing is getting started. Prompt Doc structures the way you write, beginning with a step-by-step ordering process, then going into more detail as you progress, so that eventually you have an outline so thorough you can write from it.

Prompt Doc is good at forcing you to work in a logical fashion. While some people might find this "un-creative," every form of creativity has its structure. Prompt Doc doesn't lock you into one, it just insists you have some kind of structure.

Prompt Doc works with most word processing programs. Its most serious limitation is its price: $390. Prompt Doc can be useful in commercial applications, where reports must not only be well structured, but written in a particular way. The program lets you set up customized outlines, so that all reports from your company, no matter who writes them, will have your particular form.

Prompt Doc is useful for building a table of contents or an index. The program is well documented with everything in a logical order, and easy to understand. I also liked the writing style ("There are two ways to use any software: The Right Way or the Hard Way"). These people have common sense.

Mail-Com

The U.S. Postal Service, well known for braving sleet, snow, dead of night, and Congressional committees, has decided to brave the brave new world and come out with E-Com—computer-generated mail. For a mere 26 cents per one-page letter, the Post Office will take your letter by modem, dot-matrix print it, stuff it into an envelope, lick and stamp it. Indeed, a bargain. 31 cents for a two-page letter.

As with everything the Postal Service does, it's not simple, so don't expect to hook up the modem and call your friendly local post office. Postal regulations run hot and heavy—but there is a way around it.

Mail-Com, a new software package from Digisoft Computers, allows you to adhere to every single nit-picky regulation the Post Office demands. Instead of having to pay a middle man to transfer your data to the local PO, you can become a certified carrier, and even become the middle man for other poor souls.

For $195, Mail-Com guarantees that you will be certified by the Postal Service. $195 buys a lot of 20¢ stamps—975 to be exact—so if you only mail a few letters a month it's definitely not the right thing for you.

The other little catch at the moment is the Postal Service insists you send at least 200 letters at a time. Well, actually, you can send one at a time, but they still charge you for 200. This is supposed to change sometime in January 1984, but with the Post Office you never know.

What this software (and this service) is good for is large mailings. Mail-Com allows you to format your address files already entered in your word processor or data base manager so that it will be acceptable to the Post Office. You can either have one standard letter go out, or you can have a mail merge type affair, with the addressee's name and address stuck in strategic portions of the letter ("Dear Miss Santee Water District,I know all of your neighbors out there in Santee will be green with envy when...")

The program is relatively simple to operate, but does take a while to learn. My only real objection is that the Post Office's "attention grabbing" blue-and-white window envelopes look too much like computer-printed junk mail. People may think it's a telegram or they may throw it out.

If you have the need for mass mailings, but not the staff, organization, or budget for putting them together, this may be just what you've been looking for.

Eliza

Sometimes I think it's easier to talk to my computer than to people. And now there's a program designed so you need never speak to another human again.

Eliza, as the program is nicely called, is a very simple version of what is known as "Artificial Intelligence." It simulates a psychologist asking you questions. The great thing about this program is that it actually responds to your answers. It searches out key words and reacts to them.

As you progress, it takes your own responses and throws them back at you: "But you said your mother was a tyrant?" or "You haven't mentioned sex at all."

The program was designed as an experiment, but has turned out so entertaining, and sometimes even informative, that some people even have begun to use it seriously. A psychologist I know even uses it at his office for a patient's first visit. (Some people will tell a machine things they won't tell another person.)

Eliza is a great way to introduce your friends to computers, can be a very funny party game, and actually can be a good ear for problems you don't want or are afraid to tell someone else. After you've used it many times, you begin to see how to provoke it, and then it becomes more of a game of "How can I upset Eliza?" You can't. As well as being the perfect listener, Eliza never judges.

At $25 for the protected version, and $45 for the version which lets you change Eliza's responses, this program is a great game, and sometimes even more.

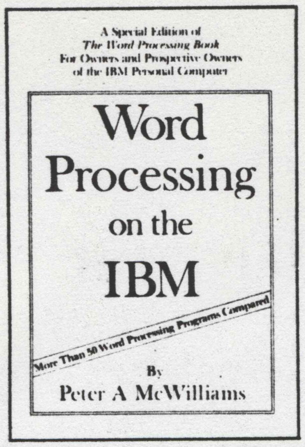
Questions & Answers on Word Processing

A Companion Volume to
The Word Processing Book

By
Peter A McWilliams

Questions & Answers on Word Processing

Mr. McWilliams led thousands out of the darkness and into the light of the computer age with his best-selling *The Personal Computer Book* and *The Word Processing Book*. From the many letters received, he has taken the most frequently asked questions on word processing and answered them—in his witty McWilliamsesque way. A best buy.



A Special Edition of
The Word Processing Book
For Owners and Prospective Owners
of the IBM Personal Computer

Word
Processing
on the
IBM

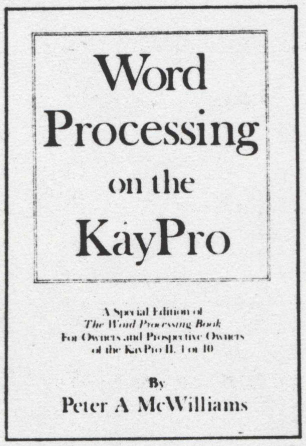
More Than 50 Word Processing Programs Compared

By
Peter A McWilliams

Word Processing on the IBM

Also a special edition of *The Word Processing Book*, this book is for owners and prospective owners of the IBM Personal Computer. Besides examining the basics of word processing, the book compares more than fifty text-editing programs currently available for the PC.

(If you've already read *The Word Processing Book*, you still may find the comparisons of the 56 word processing programs for the IBM valuable.)



Word
Processing
on the
KayPro

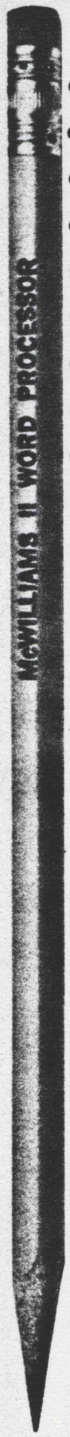
A Special Edition of
The Word Processing Book
For Owners and Prospective Owners
of the KayPro II, 4 or 10

By
Peter A McWilliams

Word Processing on the Kaypro

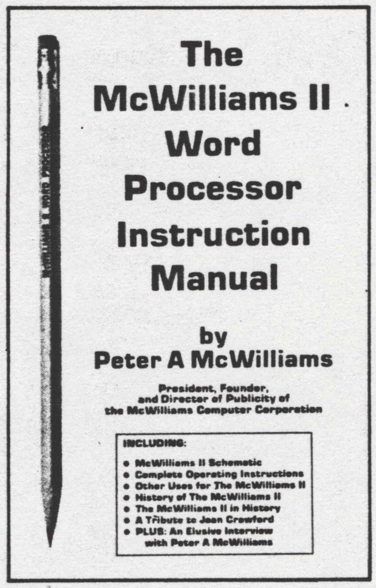
A special edition of *The Word Processing Book*, this book is for owners and prospective owners of the Kaypro II, 4 or 10 computers. Besides examining the basics of word processing, the book covers the specific computers and also offers a buying guide for the software and peripherals unique to the Kaypro.

(If you've alread read *The Word Processing Book*, you probably won't need this book.)



The McWilliams II Word Processor—Features:

- Portable
- Prints characters from every known language
- Graphics are fully supported
- Gives off no appreciable degree of radiation
- Uses no energy
- Memory is not lost during power failure
- Infinitely variable margins
- Type sizes 1 to 945 points
- Easy to learn
- User friendly
- Not likely to be stolen
- No moving parts
- Silent operation
- Occasional maintenance keeps it in top condition
- Five year unconditional warranty



The
McWilliams II
Word
Processor
Instruction
Manual

by
Peter A McWilliams

President, Founder,
and Director of Publicity of
the McWilliams Computer Corporation

INCLUDING:

- McWilliams II Schematic
- Complete Operating Instructions
- Other Uses for The McWilliams II
- History of The McWilliams II
- The McWilliams II in History
- A Tribute to Joan Crawford
- PLUS: An Elusive Interview with Peter A McWilliams